Compliance Reporting Form

Embedded Generation via Rotating Machine LV Connection
>30 kVA and ≤1,500 kVA

Certification

CX Ref #:
Energex WR#:

Date: / /

Embedded Generation via RM > 30 kVA and ≤ 1,500 kVA –
Project Name:
Location:

I certify that as a Registered Professional Engineer of Queensland and by virtue of my training and experience, that the submission documentation complies with the requirements of the latest revisions of the following:

- Energex's Technical Study Report provided for the above stated project.
- STNW1174 - Standard for LV Embedded Generating Connections [version]
- AS/NZS 3000 – Electrical Installations
- AS 60034.1 Rotating electrical machines, Part 1: Rating and performance
- AS 60034.22 Rotating electrical machines, Part 22: AC generators for reciprocating internal combustion (RIC) engine driven generating sets.
- Queensland Electricity Connection Manual [version]

In addition to the above, the following attachments have been submitted as part of the application:

- Attachment 1 – Engine/Turbine/Alternator Specifications & Checklist
- Attachment 2 – Compliance Checklist
- Attachment 3 – Commissioning Test Results
- Attachment 4 – As Commissioned Drawings

Signature:

	RPEQ Engineer Name
	Registration Number
	Professional Title
	Company Name
	Company Address
	Contact Details

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All questions in each applicable section must be answered.

Attachment 1 – Rotating Machine Specifications & Checklist

Installation details	**Data**
Customer Name	
Customer contact details	
Ergon Energy contact	
Installation approved capacity (kVA)	
Installation approved export (kW)	
Installed capacity (kVA) (Must not exceed approved limit)	
Installed export power limit (kW) (Must not exceed approved export)	
Subject description (plant information) e.g. PV export installation at shopping village	

As installed – Engine Technical Data

Parameters	**Data**
Engine/Turbine type	
Make	
Model	
Rated Power (kWe/kWm)	
Rated Voltage (V)	
Rated Current (A)	

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As Installed – Alternator Technical Data

Parameters	Data
Make	
Model	
Rated Power (kVA)	
Rated Current (A)	
Rated Voltage (V)	
Peak Short Circuit Current (kA)	

Manufacturer's specification data sheet/user manual attached Yes ☐ No ☐

As Installed – Generating System

Description	Tested by:
Complies with AS 60034.1, AS 60034.22	Yes ☐ No ☐

Comments
(please supply additional information for any non-compliances)

Single Line Diagram (SLD) attached Yes ☐ No ☐

Existing Onsite Embedded Generating Systems

Existing Installation details*	Data
Types	
Capacity	

*Prior to this application

All questions in each applicable section must be answered.

Attachment 2 – Compliance Checklist

Description	Complies	If No, supply details
Voltage Fluctuation and Flicker	Yes ☐ No ☐	
Export Requirements	Yes ☐ No ☐	
Special Instructions	Yes ☐ No ☐	
Fluctuation and Harmonic Allocations	Yes ☐ No ☐	
Power Factor Limits	Yes ☐ No ☐	

Compliance with Standard for LV EG Connections

Clause	Description	Complies
4.3	Stand-by hours limit compliance (if applicable)	Yes ☐ No ☐ N/A ☐
4.3.1.3	Power limiting (for partial-export and non-export systems only)	Yes ☐ No ☐ N/A ☐
4.7.2, Table 8	Protection device compliance, GPR functionality and settings	Yes ☐ No ☐ N/A ☐
4.7.2.4, 4.7.6.2	Loss of mains, NVD and backup anti-islanding protection	Yes ☐ No ☐ N/A ☐
4.7.2.6	Power limit protection	Yes ☐ No ☐ N/A ☐
4.7.3	Interlocking (if applicable)	Yes ☐ No ☐ N/A ☐
4.7.5	Re-energisation and synchronisation	Yes ☐ No ☐ N/A ☐
4.7.6.1	Standards compliance	Yes ☐ No ☐ N/A ☐
4.7.6.2	Exemptions (please list relevant exemptions authorised for this installation)	Yes ☐ No ☐ N/A ☐
4.10.1.1 – 4.10.1.5	Power Quality	Yes ☐ No ☐ N/A ☐
4.10.3	Power Control Mode settings	Yes ☐ No ☐ N/A ☐
6	Commissioning	Yes ☐ No ☐

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Clause	Description	Complies
7	Operation and maintenance	Yes ☐ No ☐

Comments
(please supply additional information for any non-compliances and settings as required)

Commissioning results attached Yes ☐ No ☐

All questions in each applicable section must be answered.

Attachment 3 – Compliance Report – Commissioning

Commissioning shall include the following information and test certificates are recommended for further evidence:

Compliance with Standard for LV EG Connections

System Details	Complies	Data, provide details (attach docs if required)
Installed system meets all criteria outlined in the Energex's Technical Study Report issued for project	Yes ☐ No ☐	

Rotating Machine

System Details	Complies	Data, provide details (attach docs if required)
AC Output Voltage from inverter on commissioning	Yes ☐ No ☐	
Input and Output power from rotating machine on commissioning	Yes ☐ No ☐	
Re-energisation and synchronisation as per standard	Yes ☐ No ☐	
Rotating machine performed as per approved Operating type (Clause 4.3)	Yes ☐ No ☐	

Protection

System Details	Complies	Data, provide details (attach docs if required)
Tripping and control scheme logic	Yes ☐ No ☐	
Instrument transformer ratios	Yes ☐ No ☐	
GPR details (make, model, serial number)	Yes ☐ No ☐	
Relay settings as per standard	Yes ☐ No ☐	
Relay pickup tests	Yes ☐ No ☐	
GPR – ROCOF (setting)	Yes ☐ No ☐	
GPR – directional power (setting)	Yes ☐ No ☐	N/A ☐
GPR – negative sequence voltage (setting)	Yes ☐ No ☐	N/A ☐

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All questions in each applicable section must be answered.

System Details	Complies	Data, provide details (attach docs if required)
GPR – negative sequence current (setting)	Yes ☐ No ☐	N/A ☐

Comments (please supply additional information for any non-compliances and settings as required)

Commissioning results attached Yes ☐ No ☐

Power Quality

System Details	Complies	Data, provide details (attach docs if required)
Flicker	Yes ☐ No ☐	
Harmonics emissions levels (Testing not required if no power electronic converter present)	Yes ☐ No ☐	
Voltage Unbalance (%)	Yes ☐ No ☐	
Power Factor	Yes ☐ No ☐	

Copy of Test Certificates attached Yes ☐ No ☐

Interlocking N/A ☐

System Details	Complies	Data, provide details (attach docs if required)
Manual (Key based) or	Yes ☐ No ☐	
Automated	Yes ☐ No ☐	

Prior approved automated design attached Yes ☐ No ☐

All questions in each applicable section must be answered.

Attachment 4 – As Commissioned Drawings

Single Line Diagram and AC Schematics should include

1. RPEQ Signature
2. NMI, Site name and address
3. GPR settings
4. Inverter protection details

Single Line Diagram (SLD) attached	Yes ☐	No ☐
AC schematics attached	Yes ☐	No ☐